

REMARKS

Claims 11-29 are pending in this application, of which claims 14-15 have been amended and claims 16-29 are newly-added.

New claim 16 includes the limitations of cancelled claims 1 and 5. New claim 20 includes the limitations of cancelled claims 1 and 6. New claim 24 includes the limitations of cancelled claims 1 and 7. New claim 28 includes the limitations of cancelled claims 1, 8 and 9. New claims 17, 21 and 25 include the limitations of cancelled claim 2. New claims 18, 22 and 26 include the limitations of cancelled claim 3. New claims 19, 23 and 27 include the limitations of cancelled claim 4.

Claims 1-10 stand rejected under 35 USC §112, second paragraph, as indefinite.

Accordingly, claims 14-15 have been amended to correct the noted instances of indefiniteness.

Thus, the 35 USC §112, second paragraph, rejection should be withdrawn.

Claims 1-4 and 8 stand rejected under 35 USC §102(b) as anticipated by U.S. Patent 5,696,754 to Nishizawa (hereafter "**Nishizawa**").

Applicants respectfully traverse this rejection.

Nishizawa discloses an optical disk having a high density information recording layer for recording information at high density and an information recording layer which stores information at a density lower than the high density information recording layer.

Column 3, lines 40-45 disclose that the same software can be recorded at both high and low resolution onto the two layers, respectively, which suggests that the two types of data complement each other.

Nishizawa fails to disclose the limitations of cancelled claims 5-7 and 9 which are included in new independent claims 16, 20, 24 and 28. Thus, the 35 USC §102(b) rejection should be withdrawn.

Claims 1-10 stand rejected under 35 USC §102(e) as anticipated by U.S. Patent 6,038,208 to Shikunami et al. (hereafter "Shikunami et al.").

Shikunami et al. has a "§102(e)" date of September 30, 1997, which is subsequent to the foreign priority date of July 1, 1997 claimed in the instant application.

Accordingly, Shikunami et al. is not a proper §102(e) reference and this rejection may be overcome by filing a verified English language translation of the priority document, Japan 09-191808. Accordingly, such verified English translation is attached hereto, and the 35 USC §102(a) rejection should be withdrawn.

Claims 11-13 have been allowed and claims 14-15 have been indicated as allowable if amended to overcome the 35 USC §112, second paragraph, rejection.

Accordingly, claims 14-15 have been so amended.

In view of the aforementioned amendments and accompanying remarks, claims 11-29, as amended, are in condition for allowance, which action, at an early date, is requested.

U.S. Patent Application Serial No. 09/446,981


Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "Version with markings to show changes made."

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicant's undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, Applicant respectfully petitions for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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PATENT TRADEMARK OFFICE

Enclosures: Version with markings to show changes made
Verified English Translation of JP 09-191808
Petition for Extension of Time

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IN THE SPECIFICATION:

Amend the specification as follows:

Insert and center the heading on page 1, line 4 as follows:

BACKGROUND OF THE INVENTION

Heading beginning on page 1, line 5 as follows:

[Background] Description of the Related Art

Paragraph beginning on page 1, line 23 has been amended as follows:

Demand exists for recording audio information, whose sound quality is higher than that of a conventional CD, on an optical disk and playing back the audio information with higher sound quality than that achieved by the conventional CD. Demand also exists for playing back the optical disk with the same sound quality as that achieved by the conventional CD, through use of a conventional CD player. In other words, there exists demand for an optical disk which is compatible with a conventional CD player and records music information of higher sound quality, as well as demand for a player capable of playing back the optical disk with higher sound quality. Such demands for higher sound quality and compatibility are not confined to CDs but

exist for other types of known recording media as well. Further, such demand is not limited to the field of audio but also applies to the field of video.

Paragraph beginning at page 2, line 17 has been amended as follows:

In the recording medium according to the first aspect of the present invention, first data are recorded on one of the signal recording layers, and data relevant to the first data are recorded on the other signal recording layer. Therefore, high-quality, high-resolution data can be produced by merging the relevant data and the first data into a single data set[,] during playback. Alternatively, the relevant data may be recorded as data which can be solely played back and which are higher in quality and resolution than the first data. Further, so long as ordinary CD data are recorded as the first data, the ordinary CD data can be played back.

Delete the heading beginning at page 46, line 10 as follows:

[Industrial Applicability]

IN THE CLAIMS:

Cancel claims 1-10.

Please amend claims 14-15 as follows:

14. (Twice Amended) A recorder for recording data on a recording medium, comprising

a first data output device which outputs sample data, the sample data being formed by sampling information to be recorded at a given cycle and quantizing the thus-sampled data into data having a predetermined number of bits;

a re-quantization device which re-quantizes the data output from the first data output device into data whose number of bits is smaller than the predetermined number of bits;

a first writing device which records data on a predetermined recording layer of the recording medium on the basis of the data, which has been re-quantized by the re-quantization device, at a predetermined recording density;

a second data output device which outputs data, the data being produced by sampling the information to be recorded at a cycle shorter than the predetermined cycle and quantizing the thus-sampled information into data having a predetermined number of bits; and

a second writing device for recording data on the other recording layer of the recording medium on the basis of the data, which have [been multiplexed by the multiplexing device] been output from the second data output device, at a recording density higher than [hat] that at which the first writing device records data.

15. (Twice Amended) A recorder for recording data on a recording medium, comprising:

a filtering device which limits the bandwidth of information to be recorded to a predetermined frequency bandwidth;

a conversion device which sample the data output from the filtering device at a predetermined cycle and quantizes the thus-sampled data into data having a predetermined number of bits;

a diminishing device which performs a diminishing operation on the data output from the conversion device;

a re-quantization device which re-quantizes the data output from the diminishing device into data whose number of bits is smaller than the predetermined number of bits;

a first writing device which records data on a predetermined recording layer of the recording medium on the basis of the data, which has been re-quantized by the re-quantization device, at a predetermined recording density; and

a second writing device for recording data on the other recording layer of the recording medium on the basis of the data, which have [been multiplexed by the multiplexing device] been output from the conversion device, at a recording density higher than that at which the first writing device records data.